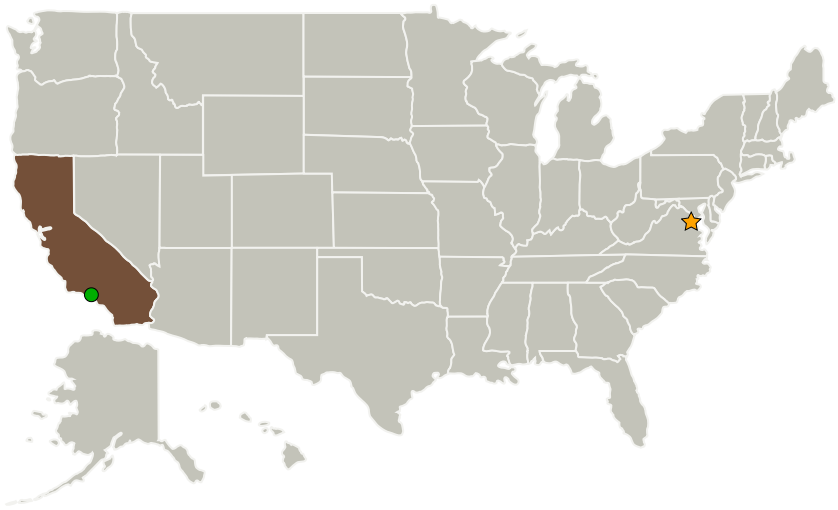
Aircraft deployable UV-SWIR multiangle spectropolarimetric imager

Completed Technology Project (2012 - 2015)

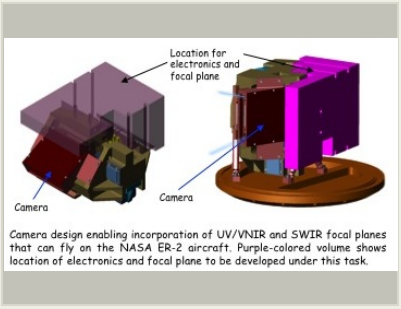
Project Introduction

• Build and demonstrate airborne UV-VNIR-SWIR multiangle polarimeteric camera for aerosol and cloud remote sensing for ACE mission.
• Develop multi-line SWIR detector and read-out integrated circuit (ROIC) that is high speed (12 Mpix/sec), low noise and can meet precise synchronization requirements of a Photoelastic Modulators (PEM) based camera.
• Integrate SWIR focal plane assembly with miniaturized spectropolarimetric filters bonded to the hybridized detector array.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★NASA Headquarters(HQ)	Lead Organization	NASA Center	Washington, District of Columbia
●Jet Propulsion Laboratory(JPL)	Supporting Organization	NASA Center	Pasadena, California



Project Image Aircraft deployable UV-SWIR multiangle spectropolarimetric imager

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Organizational Responsibility

Responsible Mission Directorate:

Science Mission Directorate (SMD)

Lead Center / Facility:

NASA Headquarters (HQ)

Responsible Program:

Earth Science

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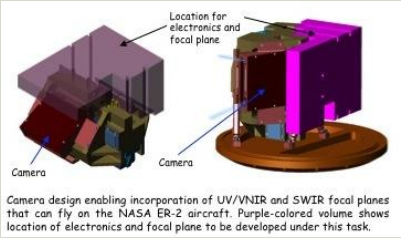
Completed Technology Project (2012 - 2015)

Primary U.S. Work Locations

California

Images



Camera design enabling incorporation of UV/VNIR and SWIR focal planes that can fly on the NASA ER-2 aircraft. Purple-colored volume shows location of electronics and focal plane to be developed under this task.

10966-1359990867084.jpg
Project Image Aircraft deployable UV-SWIR multiangle spectropolarimetric imager
(https://techport.nasa.gov/image/1561)

Project Management

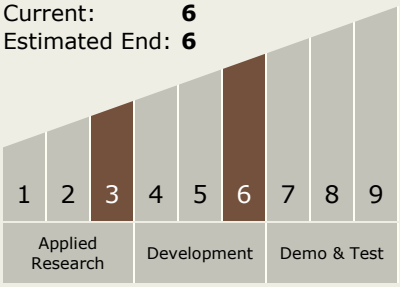
Program Director:
George J Komar

Project Manager:
Parminder S Ghuman

Principal Investigator:
David J Diner

Technology Maturity (TRL)

Start: **3**
Current: **6**
Estimated End: **6**



Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.1 Detectors and Focal Planes

Target Destination

Earth